

AMENDMENTS TO THE CLAIMS:

50 1 (Currently Amended) A photoelectric converting apparatus comprising:
a sensor unit including a plurality of pixels each having at least a photoelectric-converting means converter and a first-amplifying means amplifier for amplifying a signal derived from said photoelectric-converting means converter to output the amplified signal; and
a memory unit including a plurality of memories each having at least storing means a storage element for storing thereinto the signal derived from said sensor unit and a second-amplifying means amplifier for amplifying a signal derived from said storing means storage element to output an amplified signal wherein a gain of said first-amplifying means amplifier is made different from a gain of said second-amplifying means amplifier.

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2. (Currently Amended) A photoelectric converting apparatus according to Claim 1, wherein said first-amplifying means and said second-amplifying means amplifiers are constituted by MOS transistors.

3. (Currently Amended) A photoelectric converting apparatus according to Claim 2, wherein said first-amplifying means and said second-amplifying means amplifiers are constituted by both amplifying MOS transistors and load MOS transistors.

4. (Currently Amended) A photoelectric converting apparatus according to Claim 3, wherein a conductance of the load MOS transistor included in said first-amplifying means amplifier is made different from a conductance of the load MOS transistor included in said second-amplifying means amplifier.

5. (Currently Amended) A photoelectric converting apparatus according to Claim 4, wherein a gate length of the load MOS transistor included in said first-amplifying means amplifier is made different from a gate length of the load MOS transistor included in said second-amplifying means amplifier.

6. (Currently Amended) A photoelectric converting apparatus according to Claim 4, wherein a gate width of the load MOS transistor included in said first-amplifying means amplifier is made different from a gate length of the load MOS transistor included in said second-amplifying means amplifier.

7. (Currently Amended) A photoelectric converting apparatus according to Claim 4, wherein a gate oxide layer thickness of the load MOS transistor included in said first-amplifying means amplifier is made different from a gate oxide layer thickness of the load MOS transistor included in said second-amplifying means amplifier.

8. (Currently Amended) A photoelectric converting apparatus according to Claim 3, wherein a conductance of the amplifying MOS transistor included in

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said first-amplifying means amplifier is made different from a conductance of the amplifying MOS transistor included in said second-amplifying means amplifier.

9. (Currently Amended) A photoelectric converting apparatus according to Claim 8, wherein a gate length of the amplifying MOS transistor included in said first-amplifying means amplifier is made different from a gate length of the amplifying MOS transistor included in said second-amplifying means amplifier.

10. (Currently Amended) A photoelectric converting apparatus according to Claim 8, wherein a gate width of the amplifying MOS transistor included in said first-amplifying means amplifier is made different from a gate width of the amplifying MOS transistor included in said second-amplifying means amplifier.

11. (Currently Amended) A photoelectric converting apparatus according to Claim 8, wherein a gate oxide layer thickness of the amplifying MOS transistor included in said first-amplifying means amplifier is made different from a gate oxide layer thickness of the amplifying MOS transistor included in said second-amplifying means amplifier.

12. (Currently Amended) A photoelectric converting apparatus according to Claim 1, further comprising a transferring means system for amplifying the signal derived from said sensor unit and/or said memory unit to transfer the amplified signal to said sensor unit and/or said memory unit.